

CLAIM AMENDMENTS

Claim Amendment Summary

Claims pending

- Before this Amendment: Claims 1-6, 8, 9 and 12-18.
- After this Amendment: Claims 1, 4-6, 8, 9, 12-14, and 16-18.

Non-Elected, Canceled, or Withdrawn claims: Claims 2, 3 and 15

Amended claims: 1, 9 and 13

New claims: None

Claims:

1. (Currently Amended) A processor-readable medium having processor-executable instructions that, when executed by a processor, performs acts comprising:

- obtaining a digital good;
- partitioning the digital good into a plurality of regions;
- calculating rational statistics of one or more the regions of the plurality, so that the statistics of a region are representative of the region, wherein the calculating comprises generating the rational statistics of one or more regions of the plurality via a hashing function having ~~quotient~~ a quotient of two weighted, linear, statistical combinations and wherein the rational statistics are semi-global characteristics and the denominator of the quotient is not one;
- quantizing the rational statistics;
- marking the digital good with the quantized rational statistics of the plurality of the regions.

2. (Canceled)

3. (Canceled)

4. (Previously Presented) A medium as recited in claim 1, wherein the hashing function is

$$h_i = \frac{\sum_{j \in R_i} \alpha_{ij} s_j}{\sum_{j \in R_i} b_{ij} s_j}$$

where:

- α_{ij} is the j^{th} element of α_i and α_i are a pseudo-random generated weight factors;
- b_{ij} is the j^{th} element of b_i and b_i are a pseudo-random generated weight factors;
- s denotes the digital good of dimension $N \times 1$;
- R_i are the plurality of regions, where $R_i \subseteq \{1, 2, \dots, N\}$.

5. (Original) A medium as recited in claim 1, wherein the partitioning comprises segmenting the digital good into a plurality of overlapped regions.

6. (Original) A medium as recited in claim 1, wherein the marking comprises embedding a watermark via quantization.

7. (Cancelled)

8. (Original) A computer comprising one or more processor-readable media as recited in claim 1.

9. (Currently Amended) A processor-readable medium having processor-executable instructions that, when executed by a processor, performs acts comprising

obtaining a digital good; and

using quantization, marking the digital good with a watermark, wherein such quantization is based upon semi-global characteristics of regions of the digital good, wherein such semi-global characteristics are generated via a hashing function employing a quotient of at least two weighted linear combinations of statistics of the regions of the digital good, wherein the denominator of the quotient is not one.

10. (Cancelled)

11. (Cancelled)

12. (Original) A computer comprising one or more processor-readable media as recited in claim 9.

13. (Currently Amended) A system for facilitating the protection of digital goods, the system comprising:

a partitioner configured to segment a digital good into a plurality of regions;

a region-statistics calculator configured to calculate rational statistics of one or more of the plurality of regions, wherein the statistics of a region are representative of that region, wherein the region-statistics calculator is further configured to generate the rational statistics of one or more regions of the plurality via a hashing function having a quotient of two weighted, linear, statistical combinations and wherein the rational statistics are semi-global characteristics and the denominator of the quotient is not one;

a region quantizer configured to quantize the rational statistics of a region;

a digital-goods marker configured to generate a marked good using the quantized rational statistics.

14. (Original) A system as recited in claim 13, wherein the region-statistics calculator is further configured to generate the rational statistics of one or more regions of the plurality via a hashing function.

15. (Canceled)

16. (Original) A system as recited in claim 13, wherein the partitioner is further configured to segment a digital good into a plurality of overlapping regions.

17. (Previously Presented) A system as recited in claim 13, wherein the hashing function is

$$h_i = \frac{\sum_{j \in R_i} \alpha_{ij} s_j}{\sum_{j \in R_i} b_{ij} s_j}$$

where:

- α_{ij} is the j^{th} element of α_i and α_i are a pseudorandom generated weight factors;
- b_{ij} is the j^{th} element of b_i and b_i are a pseudorandom generated weight factors;
- s denotes the digital good of dimension $N \times 1$;

- R_i are the plurality of regions, where $R_i \subseteq \{1, 2, \dots, N\}$.

18. (Previously Presented) A processor-readable medium having processor-executable instructions that, when executed by a processor, performs acts comprising:

obtaining a digital good;

partitioning the digital good into a plurality of regions, wherein the partitioning comprises segmenting the digital good into a plurality of overlapped regions;

calculating rational statistics of one or more the regions of the plurality, so that the statistics of a region are representative of the region, wherein the rational statistics are semi-global characteristics;

quantizing the rational statistics;

marking the digital good with the quantized rational statistics of the plurality of the regions, wherein the marking comprises embedding a watermark via quantization,

wherein the calculating comprises generating the rational statistics of one or more regions of the plurality via a hashing function, h , that hashing function having quotient of two weighted, linear, statistical combinations, and where

$$h_i = \frac{\sum_{j \in R_i} \alpha_{ij} s_j}{\sum_{j \in R_i} b_{ij} s_j}$$

where:

- a_{ij} is the j^{th} element of a_i and a_i are a pseudo-random generated weight factors;
 - b_{ij} is the j^{th} element of b_i and b_i are a pseudo-random generated weight factors;
 - s denotes the digital good of dimension $N \times 1$;
- R_i are the plurality of regions, where $R_i \subseteq \{1, 2, \dots, N\}$.